

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A fuel cartridge comprising:

a housing, defining an interior space, with the interior space confining a liquid, oxidizable fuel;

a fuel egress port supported by the housing, the fuel egress port providing egress of fuel from the interior space of the housing as a vapor, with the vapor exiting the housing through the fuel egress port; and

a resistive heating element disposed in the housing and in proximity to the fuel egress port, the resistive heating element configured to produce heat, the heat providing a concomitant increase in a vaporization rate of the fuel as the vapor from the housing, with the cartridge having the fuel egress port configured to attach to a fuel cell via an interconnect interposed between the fuel egress port and the fuel cell to deliver an oxidizable vapor to the fuel cell through the interconnect.

2. (Withdrawn) The fuel cartridge of claim 1 further comprising:

a surface area enhanced planar vaporization membrane at the heat producing element.

3. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is disposed about a substantial portion of the heat producing element.

4. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is a composite membrane comprised of multiple layers or folds of polymer membrane to increase vapor permeation surface area.

5. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is a membrane arranged as a series of folds.

6. (Withdrawn) The fuel cartridge of claim 2 wherein the surface area enhanced planar vaporization membrane is a polymer membrane provided with macroscopically irregular and/or microscopically roughened membrane surfaces to increase the effective membrane surface area for pre-evaporation.

7. (Withdrawn) The fuel cartridge of claim 2 wherein the heating element is disposed within the housing adjacent the surface area enhanced planar vaporization membrane that spaces a liquid source of hydrogen containing compound or carbonaceous fuel from a vapor phase of the source of hydrogen containing compound or carbonaceous fuel.

8. (Previously Presented) The fuel cartridge of claim 1 wherein the fuel confined by the housing of the cartridge is supplied as the vapor to a direct methanol fuel cell and is a liquid source of hydrogen containing compound or carbonaceous fuel.

9. (Previously presented) The fuel cartridge of claim 1 wherein the resistive heating element is a wire disposed in thermal communication with the interior of the cartridge.

10. (Previously presented) The fuel cartridge of claim 1 wherein the resistive heating element is a wire.

11. (Previously presented) The fuel cartridge of claim 1 wherein the resistive heating element spaces a vapor portion of the cartridge from a liquid reservoir of the cartridge.

12. (Currently Amended) A fuel cartridge, configured to deliver an oxidizable vapor to a fuel cell, the cartridge comprising:

a housing;

a fuel egress port supported by the housing configured to pass fuel in vapor phase[[,]] from the housing to a fuel cell via an interconnect interposed between the fuel egress port and the fuel cell;

a bladder for containing a source of fuel;

a resistive heating element disposed in the housing and in proximity to the fuel egress port to produce heat, the heat providing a concomitant increase in a vaporization rate of the fuel that exists exits the housing as the vapor phase; and

a piston that is urged against the bladder.

Claim 13 is canceled.

14. (Previously presented) The fuel cartridge of claim 12 further comprising a spring mechanism disposed to urge the piston against the bladder.

15. (Previously presented) The fuel cartridge of claim 12 further comprising a battery cell disposed to supply power to the resistive heating element.

16. (Original) The fuel cartridge of claim 12 wherein fuel cartridge is a prismatic shaped cartridge.

17. (Original) The fuel cartridge of claim 12 wherein the source of fuel in the bladder is methanol.

Claims 18. – 22. are canceled

23. (New) A fuel cartridge for delivering methanol vapor to a direct methanol fuel cell, the cartridge comprising:

a housing, defining a reservoir for confining a liquid source of hydrogen containing compound or carbonaceous fuel;

a fuel egress port supported by the housing, the fuel egress port providing egress of fuel from the reservoir as a vapor, with the vapor exiting the housing through the fuel egress port that is configured to attach to a direct methanol fuel cell via an interconnect interposed between the fuel egress port and the direct methanol fuel cell to deliver methanol vapor to the direct methanol fuel cell through the interconnect; and

a resistive heating element disposed in the housing and in proximity to the fuel egress port configured to produce heat to provide a concomitant increase in a vaporization rate of the methanol as vapor with the resistive heating element spacing a vapor portion of the cartridge from the reservoir of the cartridge.

24. (New) The fuel cartridge of claim 23, wherein the resistive heating element is a wire disposed in thermal communication with the interior of the cartridge.

25. (New) The fuel cartridge of claim 23, wherein the resistive heating element is a wire.

26. (New) The fuel cartridge of claim 23 further comprising a battery cell disposed to supply power to the resistive heating element.

27. (New) The fuel cartridge of claim 23 wherein fuel cartridge is a prismatic shaped cartridge.